It’s time to own compact, desk side, personal supercomputer

BoxClusterML - The HPC Systems BoxClusterML provides one step, turn key, desk side supercomputing facility for professionals.
BoxClusterML gives capability to expand further increasing demand of the performance by just stacking another BoxClusterML on top.

Why choose BoxClusterML

- Quiet and comfortable - Super silent 47dB(A) under full load with Core™2 Duo E6850
- Conserve the Earth, less CO_2 - Just 670W per system with Core™2 Duo E6850, 4GB RAM per node configuration
- Light weight - ONLY 41kg ! 40+% lighter than competitor's solution
- Single point administration - Centralised home, NIS, NFS, and Platform® LSF as standard
- Seamless integration - With wide range of tested software + interconnect devices
- Stackable - Up-to 2 boxes
- OEM models - Custom coating/painting, custom front panel

Custom solution

Multitude configurability

HPC - Intel® Cluster Ready compatible. Infiniband, Myri10G, 10G Ethernet, QsNetII. Linux or Windows® CCS
Server - Linux or Windows® Server 2003 / 2008 as Department Server (RAID+Network)
Storage - Consolidated lightening fast network (10GbE) storage server on Linux or Windows® Server 2003 / 2008
Custom - OEM front panel, Chemical Agent Resistant Coating (CARC) paint for labs

HPC SYSTEMS

Who is using BoxCluster

HPC Systems has been shipping the BoxCluster series for over 700 systems with several generations of modification/upgrades to wide range of market segments from university researchers to automobile manufactures.

BoxCluster availability

BoxCluster series are available from the HPC Systems web site www.hpc.co.jp
HPC Systems provides third level support to OEM customers and direct support to end-users. HPC Systems also provides additional services including on-site installation, site planning, performance tuning and second level support and custom solution development.

Benchmark Results - Fluent L3 Large Rating Results

Platform	FLUENT Version	CPUs or Cores	A higher rating means faster performance
HP DL140 (EM64T,3600,WINCCS,IB) †	6.3	8	120.0
HP DL585 (OPTERON_2CORE,2600,RHEL4,IB_VOLTAIRE) †	6.3	8	119.2
HP XC4000 (OPTERON_2CORE,2200,LINUX,IB_VOLTAIRE) †	6.3	8	102.7
IBM X3650 (EM64T_CLOVERTOWN_4CORE,2660,RHEL4) †	6.3	8	93.3
INTEL® WHITEBOX (EM64T_WOODCREST_2CORE,3000,RHAS4,IB_MELLANOX) †	6.3	8	137.8
HPC6000-XC416C (Core™2 Duo, E6700, 2666, RHWS4, GBE) ††	6.3	8	155.0
HPC7000-XM432R4 (Xeon® Tigerton, X7350, 2930, RHWS4, GBE) ††	6.3	8	123.0
BoxClusterML (Core™2 Duo, E6850, 3000, RHWS4, GBE)	**6.3**	**8**	**191.7**

† Benchmark data from Fluent official site at http://www.fluent.com/software/fluent/fl5bench/flbench_6.3.x/fullres.htm
††Data published on HPC Systems homepage at http://www.hpc.co.jp/appli/solution/fluent/fluent_bench.html

BoxClusterML Specification

Node Specification	
Proccessor	• Dual-Core Intel® Xeon® Processor 3000 Sequence • Quad-Core Intel® Xeon® Processor 3200 Sequence • Intel® Core™2 Extreme Processor • Intel® Core™2 Duo Processor • Intel® Core™2 Quad Processor Supports 800 / 1066 / 1333 MHz FSB
Chipset	Intel® X38 + ICH9-R
Memory	Four DDR2-667/800 ECC unbuffered
HDD	Four SATA 3.0Gb/s upto 750GB
I/O	Two external USB 2.0 ports Two 10 / 100 / 1000 Base-TX RJ45 One COM DB9 port One VGA port
Expansion	PCI Express x16 full height card
PSU	370W

System Specification	
Node Quantity	4
HUB	8 ports Gigabit Switching HUB
OS	RedHat® Enterprise Linux WS 4 x86_64 Microsoft® Windows® Compute Cluster Server 2003 Microsoft® Windows® XP 64bit
Size	H 23.1" x W17.1" x D25.2" H 586mm x W 434mm x D 640mm
Weight	91lbs / 41kg
Noise Level	47 dB(A)
Power Consumption	670W (with Core™2 Duo E6850, 4GB RAM, Full load)
Operating Environment	100 - 120 V / 50 ~ 60 Hz 50 to 95 F (10 to 35 C) 20 to 80% (RH), non condensing

About HPC Systems

HPC Systems is a leading system integrator of High Performance Computing (HPC) solutions. Since its inception in 2006 (as an equal merger of 10 years in industry, HIT Ltd. and 20 years in industry, Proside Corp.), HPC Systems has quickly established itself as a technology and performance leader in Japanese small to mid-range HPC/EDA market leveraging the significant synergies between both companies' software and hardware engineering. Our company plans for further growth and developments in world class solutions, to support our customers technological development.

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